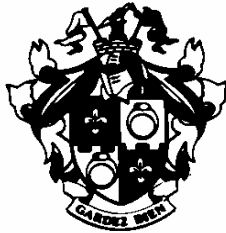


PROGRAM OF REQUIREMENTS
FOR
WHEATON LIBRARY
RENOVATION



Montgomery County Government

Prepared by

MONTGOMERY COUNTY
DEPARTMENT OF PUBLIC LIBRARIES
AND
DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
DIVISION OF FACILITIES AND SERVICES

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PROGRAM OF REQUIREMENTS

FOR

WHEATON LIBRARY

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Wheaton, Maryland 20902**

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REVISION NOTE: This document was revised in February & November 2004. The change is in response to an OMB decision to fund 80% of the furniture replacement for the POR and a requirement to have all furniture evaluated before the project is ready for construction. The funding for furniture will be adjusted to reflect the results of the evaluation. Thus all language about furniture replacement was modified to reflect this change.

In order to ensure that office spaces comply with Montgomery County Space Planning Standards, the following language was added to page #42: No office spaces will exceed the MC DPWT office space standards.

There are no other changes to this document.

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GENERAL RENOVATION GOAL

Renovation planning is a process that looks at a building and its services as an integrated whole. This overall systematic analysis of the building on a reasonable timetable is critical to maintaining adequate, safe and up-to-date public facilities. Working with the Division of Facilities and Services, the Department of Public Libraries does major renovation assessments on a regular 20-year cycle in order to:

- Provide up-to-date, comfortable and safe physical facilities for the delivery of effective, efficient, and equitable access to library services for citizens throughout Montgomery County, Maryland.
- Protect capital investment by maintaining the library system's infrastructure.
- Assure that overhaul and replacement of major mechanical, electrical, duct, and lighting systems which are outdated and beyond economical repair are performed while maximizing public service hours from one year to the next.
- Upgrade buildings to meet new code requirements (ADA, fire code, energy, safety requirements, etc.).
- Update building requirements necessitated because of technological change by:
 - meeting electrical load and cabling requirements in order to provide adequate access to power and communications;
 - providing flexible space design;
 - providing a sufficient number of dedicated conduits;
 - providing some blank circuits for future growth needs;
 - change lighting and acoustics as needed to accommodate new technology.
 - Provide building energy monitoring and control systems.
- Determine whether building size is appropriate to meet current and projected service demands by studying:
 - changing population density;
 - changing key demographics of the population which may alter library use patterns, i.e., age, ethnicity, income characteristics;
 - changing program emphasis;
 - changing information formats.
- Update old, dated furniture and equipment to meet the needs and expectations of the community by:
 - replacing outdated/outmoded equipment; (Building mechanical HVAC equipment, building control systems, roof system, elevator system, etc.)
 - replacing furniture to accommodate new equipment and customer requirements;
 - replacing telephone systems with more efficient modern equipment;
 - replacing seating to meet the needs of the community;
 - replacing information and circulation desks with ergonomically designed desks that accommodate new equipment and address changing ways of doing business.

- Redesign the interior to more efficiently utilize staff and enable customers to better “help themselves” by:
 - creating joint Adult/Children’s information desks where feasible in libraries;
 - creating an open floor plan which allows:
 - Information and Circulation staff to monitor the building for safety and security;
 - various collections to expand, contract and adapt as the community and information formats change.
- Create simple, logical floor plans for better service.
- Add signage which will encourage self-service.
- Provide more electronic workstations for customers to use to access information and their personal library records.
- Design a quiet study space into the building so that customers can work away from the sounds of telephones, equipment, staff, and other customers.
- Redesign staff work areas to provide adequate workspace for each staff member.

INTRODUCTION

Library Mission Statement: The public library offers free and equal access to services and resources to assist the people of Montgomery County in finding ideas and information to sustain and enrich their lives. The Wheaton Library is a busy, full-service branch.

Level of Use: The Wheaton Library accommodates the following volume of use in FY02: (note: the library was closed for 5 weeks for a mini-renovation)

Traffic	529,879
Circulation	671,605
Information/Advisory questions	44,743
Title Requests	42,250
Internet Sign-Up	70,292
Library-sponsored programs	274
Total attendance at sponsored programs	8,959

Meeting Room Use: Approximately 8 groups use Wheaton's large meeting room on a monthly basis, and another 3 book it weekly. For the 12 months of FY03, total hours reserved through the Community Use of Public Facilities office, as of May, are 1075. The library and the Literacy Council are also heavy users of the space.

In 2001, the small meeting room was converted into a temporary computer instruction lab, since the space originally housing the lab at the Long Branch Library was closed for the library's renovation. The biweekly use of the meeting room for computer training was discontinued in January, 2003, the lab's computers will move in the autumn of 2003 to the renovated Bethesda library, and the room will again be available for meetings.

Hours of Service: Wheaton Library currently offers 63 hours of public service a week:

Monday - Thursday	10:00 a.m. - 9:00 p.m.
Friday	10:00 a.m. - 5:00 p.m.
Saturday	9:00 a.m. - 5:00 p.m.
Sunday	1:00 p.m. - 5:00 p.m.

Staff Complement: Library staffing amounts to 21-1/2 work years, as of the beginning of FY04.

There are 14 full time staff members:

	1 Library Assistant Supervisor
	1 Library Assistant II
	3 Library Assistant I's
1 Manager III	
2 Senior Librarians	
2 Librarian II's	
1 Librarian I	
3 Library Associates	

In addition, there are 15 part time staff:

2 Librarian II
3 Librarian I's

1 Library Associate
6 Library Assistant I's
3 Library Desk Assistants

There are also 15 shelving assistants working a total of 178 hours per week, which are not included in the work-year total above. The library benefits from the work of community volunteers, whose number varies. Currently there are 25 regular volunteers, who together provide about 75 hours of service weekly.

Finally, the Friends of the Library book sale is located in this building on the lower level.

Number of customer visits daily - 250

Number of volunteer hours of service per year- 8000 contributed by 35 volunteers

GENERAL BUILDING REQUIREMENTS FOR A LIBRARY

General Building Description

The Wheaton Library was built in 1960 and underwent a major renovation and expansion in 1985. It is approximately 40,000 square feet on two floors. About 32,000 square feet of the space is used for library functions.

Currently there is a large relatively unfinished basement-type space on the lower level that is used for two purposes: the Department's Friends of the Library for its book sale of used items, mechanical/electrical rooms and storage. There is some finished space on the lower level as well, which is used for a staff lounge/kitchen, the Literacy Council of Montgomery County, Inc. (LCMC), two meeting rooms, public restrooms and an atrium space.

The second floor houses the public library, the staff workroom spaces in various areas, and public restrooms. There is an atrium that opens to the lower level.

There is no staff or delivery entrance into the building. There are three public entrances into the building – two at the back of the building on the lower level where the majority of the parking is available, and one on the Georgia Avenue (front) side of the building. Situated at the corner of Georgia and Arcola Avenues, makes for a convenient location for commuters. Wheaton is a well used because of its size and location. It is a very busy library, typically third in circulation of materials in the library system. In addition to be a full service library, the Wheaton Library houses special resources for health information for the Department.

The Wheaton area is one of the older communities in the County and any growth will be the result of infill. Population growth the Kensington/Wheaton Planning area is expected to be modest over the next two decades—year 2000 population was 79,542; year 2025 population projected to be 87,085; a 9.5% increase. {Source: Maryland National Capital Park and Planning Commission – MNCPPC – Round 6.3 Household Population by Planning Area, Revised April 2003.}

The County is working with the community to revitalize the downtown Wheaton area, which was becoming quite run down. A number of new residential and office building are being constructed there. Following the County's Smart Growth Policy, Wheaton is a prime place with reinvest because of the existing infrastructure, the need for revitalization and excellent transportation – Metrorail, bus service and existing roads.

In 2002, there was a mini-space renovation to allow for a language lab and for tutor and group study spaces to meet the needs of the diverse community. There are many students and customers with English as a second language in the area which warranted the change.

The building has numerous physical problems. The most serious problem is moisture, mildew and mold; partly because part of the basement is unfinished. The building has

seepage problems through the brick and block exterior, plus several leaks through windows and skylights. The HVAC system is old and not energy efficient. The space is unevenly heated and cooled and not comfortable to work in. Natural lighting is poor in the building. Although there are two skylights, the glazing allows little light to filter through. There are few windows, and they are small. Of all of the public libraries in the County, the Wheaton Library gets the most negative comments about its outside appearance, which is drab and often referred to as looking like a prison.

The staff offices and workroom on the second floor are scattered throughout the space, which does not make for an efficient workflow; nor does it allow good staff communication. With the staff lounge/kitchen on the lower level, it makes meal and break time difficult because of the time running up and down stairs just to get a cup of coffee. It is also difficult to contact staff should they be needed for backup on the public floor.

The shelving ranges are placed too close together, making it difficult for more than one customer to browse at a time. The shelving is also unusually tall, making it difficult to use. Because it is old, replacement pieces (shelves, uprights, etc.) can no longer be purchased. The tables are large and unwieldy, taking up too much precious space in a very crowded, heavily used building. The chairs have been re-glued and re-upholstered and need to be evaluated. Staff furniture was not designed for computers and it does not meet current ergonomic requirements. Because of heavy use, the furniture is generally worn. Fund for 80% of the furniture and evaluate actual need prior to the renovation.

The Wheaton Library does not meet current building and ADA code requirements. Many changes will need to be made to the building to bring it up to code, including adding a sprinkler system, additional fire doors, and new fire/security systems. The building was retrofitted to make “a reasonable accommodation” to meet the ADA code, but will require additional changes during a renovation.

Summary of Renovation Needs

- Replace the HVAC system, bringing all building systems up to applicable building and energy requirements; install new management technologies; replace the building envelope (storefront and windows); building roof system, and improve pedestrian walkways, parking lot, interior/exterior lighting systems, and storm water management.
- Landscaping must be renovated as part of the project, including maintaining current plantings and adding some new.
- The space in the building must be utilized more effectively.
- Because of heavy use and the age, the furniture is worn. The PDF will provide for 80% replacement and the furniture will be evaluated for actual need prior to the renovation..
- 10% of the shelving can be re-used; however, approximately 90% needs to be

replaced.

- Move the public stairway into the current atrium area and close off the existing public stairway. (see attached drawings)
- Redirect traffic flow and eliminate route under building overhand.
- Address moisture problems in building's lower level (unfinished storage areas, mechanical room areas, conference room)
- Totally refinish all storage spaces in lower level. Provide moisture control, floors, insulated walls, and HVAC controlled spaces.
- Address moisture damage to overhang soffit system.

Recommendations for Change:

- Rework building street side entrance
- Relocate staff rest room. All rest room systems are undersized. Increase size.
- Renovate 1959 elevator. Replace elevator's jack system (this is a high usage elevator)
- Provide additional storage space.
- Confine all electrical panels to one central electrical room.
- Relocate staff kitchen from lower level to upper level
- Install sound-loop in large conference room.
- Replace all floor carpet.
- Provide fenced in dumpster system with concrete pad system.
- Replace all site/building signage.
- Install public address sound system.

Site Use and Building Access

Conditions in the Existing Building:

- The delivery entrance is a public entrance. It is close to the circulation workroom, but deliveries can temporarily impede access by the public.
- There is one small sign directing the public to the building.
- There is no signage to indicate if building is open or closed other than posted hours on doors.
- A few of the shrubs and other plants are dead or diseased. Several large stumps mar the grounds.
- Metal benches and a picnic table are not shaded and are on worn, bare patches. One wooden bench is broken.
- Flagpole mechanisms are worn and do not work properly.
- There is a light on the flag.
- There is a sculptural bicycle rack.
- Various trash and recycling receptacles are scattered by the back door of the Book Sale room.
- There is a rat infestation problem on the site that maintenance cannot solve.

Recommendations for Change:

- Need a designated delivery entrance into the staff workroom.
- Need large sign on the building and freestanding by the road to advertise library. Add a lighted sign to indicate if the library is open or closed.
- Replace wooden bench; refinish metal benches; landscape the bench area.
- Renovate flagpole mechanisms.
- Replace and screen trash receptacles in an organized manner and placing them conveniently for service workers.
- Aggressively attack the rat problem while the building is closed for renovation.

Structural Issues

DFS TO COMPLETE THIS PART

Recommendations for Change:

Parking Lot

Conditions in the Existing Building:

- The parking lot was expanded, milled, surfaced and re-stripped in 1998. New signs were also installed, but will be 12 plus years old at the time of renovation.
- There currently is adequate parking for normal library use. However, Children's programs and County programs create parking overflows to the adjacent neighborhood streets.
- There 186 parking spaces, with an additional 8 spaces for drivers with handicap tags.
- Lighting is inadequate in some areas of the parking lot and in front of the building.
- Water pools in several areas of the parking lot, making it dangerous, particularly in the winter.
- Because of the confusing circulation pattern and cut through traffic, the parking lot is unsafe for pedestrians.
- The parking lot is used as a shortcut between public streets.
- Fire & Rescue is moving to the lot across Arcola and recreational facilities are planned on both sides of the library.

Recommendations for Change:

- Replace signs.
- Mill and overlay the existing parking; re-stripe and replace signs as needed.
- Fix curbs.
- Enhance lighting to eliminate dark areas.
- Correct drainage problem.
- Eliminate and redesign the current drive through drop off area at the rear entrance for safety reasons.
- Replace all parking lot lighting.
- Eliminate traffic passing under building's overhang structure.
- Study parking lot access because of impact and make necessary changes. Fire & Rescue & Recreation change in the traffic patterns.

Safety and Security

Effective security must be provided for the staff, the public, and the equipment, including library materials.

Conditions in the Existing Building:

- Motion detection system is in operation in part of the building, but system technology is dated.
- Checkpoint materials security system is in operation, but technology is dated.
- There is a public address system, but technology is dated.
- There is some emergency lighting, but it is inadequate.
- There are smoke alarms and visual signals for hearing impaired.
- The exit doors, which are storefront-type double doors, are old and must be replaced for energy efficiency and improved functioning.
- Button-controlled automatic doors are installed at two of the three public entrances, but they do not always function properly.
- A safe has been anchored to the floor of the office of the Library Assistant Supervisor.
- There are no security cameras in the building to monitor interior or exterior activity.

Recommendations for Change:

- Replace building's security system for the entire building and grounds. Require County monitoring 24 hours/day.
- Replace public address system throughout building.
- Update and install additional emergency lighting.
- Replace public entry doors and overall storefront and automatic openers
- Install a digital system of security cameras in areas that cannot easily be monitored by the Information and Circulation Desks.
- Include exterior cameras for parking lot monitoring.
- Replace doors with an electronic card locking system.

Telephones

Conditions in the Existing Building:

- New telephones were installed in 2001.
- Telephones Operate via the County Fibernet.

Recommendations for Change:

- Replace the telephones with the new County standard at the time of the renovation.

Lighting, Electrical, Electronic Needs

The interior of the building must be wired for future flexibility to handle a variety of electrical and electronic equipment, including voice and data lines.

Lighting

Conditions in the Existing Building:

- Lighting is good in some places, but inadequate in others.
- Natural lighting is brought into the building via two large skylights, but they are tinted. In bad weather or when there is snow cover on the skylights, the library is dark. The library's windows are few; most are small and high.
- The small meeting room has no natural lighting; the large one does at the exit doors only.
- Windows are not energy efficient; very few are operable.
- Emergency lighting is inadequate.
- For parking lot lighting, see Parking Lot section above.

Recommendations for Change:

- Lighting needs to be replaced for efficiency reasons and to eliminate spots or shadows cast from the high bookcases. Customers and staff must be able to read the labels and spines of the books.
- Replace all lighting systems.
- Replace all windows with energy efficient and operable windows. Larger windows are desirable.
- Update and replace emergency lighting.
- Provide natural light in the meeting rooms, if feasible.
- Provide central digital controlled lighting panel such that all lighting systems can be monitored and controlled.

Electrical, Electronic Needs

Conditions in the Existing Building:

- Conduit runs for electricity, electronic cabling, voice and data lines are not large enough for current equipment or future expansion.
- Information and Circulation Desks and workspace areas do not have ample raceways for wire management.
- Some workroom and office spaces do not have sufficient electrical outlets.
- Fibernet is in the building.
- Wireless networking is in the building.
- Most furniture does not have access to power or raceways for the wire management necessary for current electronic devices.

Recommendations for Change:

- Improve flexibility of wiring, providing conduit runs of sufficient capacity to allow for opening day and future wire insertion, as well as some blank circuits for future dedicated lines.
- Provide electrical/conduit plan that is flexible enough to accommodate future rearrangement of shelving and furniture.
- Include the addition of the County's Fibernet network needs in the electrical/conduit plan.
- Provide flush mounted floor outlets and ample numbers of wall outlets at regular intervals throughout the building and wire management in all furniture.
- Reroute and add outlets in public, office, and workroom areas to meet current and future needs.
- Furniture needs to have access to power source and be designed for electronic equipment.
- Provide central electrical room. Locate all electrical panels in the electrical room.
- Determine if emergency generator is needed.
- Provide new digital fire alarm system. Require County monitoring 24 hours/day.

Acoustics

Conditions in the Existing Building:

- In general, noise carries too easily all across the library, especially from downstairs in the atrium up to the library where the service desk and reading areas are located and to the computer area which is in a room under the skylight.
- Children's area becomes so noisy it is difficult to hear when talking on the telephone.
- Staff work areas offer few barriers to absorb noise or to provide for privacy and a quiet workspace.

Recommendations for Change:

- Evaluate noise and reverberation levels and bring them to standards, paying particular attention to the children's room, at the service desk and the atrium and skylight areas.
- Move the public stairway to the current atrium, close off part of the atrium, and demolish the existing stairway, thus addressing the noise problem and providing additional functional space.
- Devise a way to absorb/buffer excessive noise from the Children's area without closing off the Children's room from the rest of the library.
- Provide acoustical materials to help eliminate some of the noise throughout the library.
- Plan an office arrangement or office system that addresses noise levels in the work areas (see Administrative Offices and Staff Work Spaces sections).

Mechanical Systems, Environmental Controls & Energy Conservation

Conditions in the Existing Building:

- Ventilation and air circulation are uneven and poor throughout the building.
- Technology of the HVAC system is outdated and inefficient, and the system is generally unreliable.
- Building has some small operable windows in both the public and staff areas, but they are very difficult to open.
- Many of the windows leak. The skylights leak.
- Storefronts at all public entrances are not energy-efficient.
- Filtering system is inadequate, which results in much dust accumulation.
- Plumbing is generally adequate; however, more restroom capacity is needed – see Public Restrooms and Staff Restrooms sections.
- The elevator is old and needs a major renovation.
- One elevator is inadequate, especially if the book drop is relocated at the parking lot level where it is convenient for the public.
- Building surfaces are generally in fair condition.
- There are no ceiling fans to provide ventilation in poorly ventilated parts of the building. The library is using some standing fans.
- The roof was replaced in the early 1990s and needs to be replaced as part of the renovation.

Recommendations for Change:

- HVAC system must be replaced.
- Install air cooled chiller system. Replace all boilers.
- Install HVAC digital controlled system monitored by the County 24 hours/day.
- Windows need to be replaced with energy efficient, operable windows.
- Replace skylights.
- Replace storefronts throughout the building.
- Where feasible, replace windows with larger ones.
- Air quality must be improved with better filtering system.
- Renovate the elevator to bring it up to current standards.
- Replace elevator's jack lift system.
- Provide a service elevator by the new book drop.
- Replace roof.
- Provide ceiling fans above the circulation desk (and other spaces if air additional circulation is needed) (Note: with proper HVAC system, ceiling fans will not be needed)
- Upgrade building's sprinkler system to meet current codes.

Building Moisture Problems

Conditions in the Existing Building:

The Wheaton Library currently has a serious moisture problem at the building's lower level. During the rain season, uncompleted storage rooms and the main mechanical room can have serious seepage water problems. Also, lower level conference room has seepage water problem.

Recommendation for Change:

Address all of the building's seepage water problems. (see Architect's attachment for design changes.)

Signage

Conditions in the Existing Building:

- Interior signage is inadequate for easy public use of the building.

Recommendations for Change:

- Replace all exterior/interior signs with new signs with large, clear lettering that meet the needs of the diverse community. Use differing types of furniture to help define function and purpose of the public areas, allowing the public to easily use the building.

Carpeting, Finishes and Furniture

Conditions in the Existing Building:

- By the time the building closes for renovation, carpeting will need to be replaced.
- Walls need repainting.
- The original furniture is large and uses too much space. Computer furniture is mismatched and dated. All furniture is wearing under heavy public use, and will be more than 25 years old when the library closes for renovation, and in generally poor condition.

Recommendations for Change:

- Replace carpeting with grade that will withstand at least 10 years of heavy public use. Install carpet pad under the carpet behind the circulation desk for circulation staff who spend most of their day standing.
- Paint walls and other surfaces inside and outside of the building.

- Fund for 80% of furniture replacement and evaluate actual need prior to renovation. (see individual spaces in the section, Components of the Wheaton Library, for specifics).

Shelving

Conditions in the Existing Building:

The Wheaton Library currently has mostly metal shelving that is very tall and is not as flexible as the type we purchase today. We anticipate re-using very little of it in the renovated library. Perhaps 10%, which is newer Spacesaver metal shelving, can be used in the library, while some of the older shelving could be used in non-public areas.

Recommendations for Change:

- Replace 90% of the existing shelving in the public areas with shelving that is adjustable and flexible.
- Provide wood end panels for the shelving.
- Provide signage for the end panels.

Future Technologies

Radio frequency identification (RFID) is a replacement for the barcode based inventory systems currently in use by library systems. It is a proximity-based (i.e. non-contact) automatic identification and data collection system. RFID is a benefit to library systems by allowing better inventory management, providing effective theft deterrence, and allowing greater customer self-service options. Inventory is managed better by allowing staff to focus less on the physical handing of materials and more on [direct customer service and profiling the collection](#) to the needs of the community. Theft deterrence is more effective since all RFID tags have security features built-in (unlike barcode technologies). Lastly, RFID enhances self-service options by increasing ease to use, reducing time spent in queues, and ensuring privacy of borrowing habits.

RFID systems include the following components:

1. ***RFID Tag:*** RFID tags are the actual barcode replacement.
2. ***Portable Stock Management Scanner:*** A handheld scanner or “wand” style reader. It is used to collect inventory data, search for items for retrieval or weeding and detect items out of order items.
3. ***(Self) Checkout Station:*** A station checks out the materials, de-activates the security tag, and prints a receipt.
4. ***Theft Detection Gates:*** Gates are used to check the status of the security bit within the RFID tag.

5. ***Book Return:*** RFID systems incorporate specialized book return drops that will automatically check-in the book as it passes through. This guarantees and immediate update to the customer's record.
6. ***Sorting Station:*** A station that can automatically sort materials by location for easy shelving or transit.

This technology is just coming into the public library market, and larger libraries are looking seriously at these products for their buildings. While we are unable to provide for the Program of Requirements an assessment at this time of the cost-effectiveness of RFID technology for our library renovation and construction projects, it is important for this technology to be included in the cost analysis for all projects.

COMPONENTS OF THE WHEATON LIBRARY

In the following sections, the components of the Wheaton (activities, participants, area required for the activity, environment desired, equipment, furnishing and adjacencies required) are described one by one. Following each description are recommendations for change.

Library Entry

The Circulation Desk needs to be close to the library entry. It is also useful to have an attractive community information area with bulletin boards, community information display area, lounge chairs and tables, and space to accommodate customers to line up in front of the Circulation Desk and to enter or exit the programming rooms.

The library has three public entrances: two on the ground floor from the parking lot and one on the first floor on the Georgia Avenue side of the building.

Conditions in the Existing Building:

Two Ground Floor Entrances:

- Storefronts are not energy efficient and must be replaced.
- There is a keyed locking system.
- Automatic, handicapped doors are in one of the vestibules.
- Display units include 6 low carts for giveaways, with 8-1/2 linear feet of shelving each, totaling 51 linear feet of space for handouts and newspapers.
- There are 3 wall racks and 2 easels for additional pamphlets.
- There are 10 large bulletin boards.
- No seating is currently provided.

First Floor Entrance:

- Storefronts are not energy efficient and must be replaced.
- Entrance is used for deliveries.
- There is an automatic, handicapped door.
- Entrance is dark and uninviting.
- Local book sale shelving with 153 linear feet, is past the vestibule on one side of the entryway.
- Two gates for the Checkpoint Security system control the entrance to the main library area.

Recommendations for Change:

- Review Architect's attached renovation design report/drawing.
- Replace all storefronts.
- Replace keyed access/locking system with a card access/locking system.

- Replace automatic doors with ones using the new technology.
- Consider only one entrance into the lower level.
- Provide a delivery entrance directly into the staff workroom.
- Provide bulletin boards and fixtures for community newspapers, handouts, and giveaways.
- Create a space with shelving for book sale materials.
- Replace and install a new security system.

Circulation Desk

Activities at the Circulation Desk include check-in, renewal, and check-out of library materials; pick-up of reserved materials; payment of fines and other charges; user registration for library cards; and back-up telephone answering. Additional services include purchase of Metro Cards and Ride-On passes. Returned library materials are checked in and sorted onto book trucks and into tubs for shelving or forwarding to other libraries. Reserved books are stored on shelved behind the desk. Miscellaneous supplies and materials essential to circulation functions are stored in and under the desk.

Two to three staff members are scheduled on the desk, depending on public demand. Space is needed for a total of six terminals – a combination of staffed and self-service checkout to be determined later. By the time of the renovation, self-service check out may be the primary check out option. Each takes the same amount of space. There also must be space for registration, a cash register, and a shared printer for the Sirsi computer system. Each workstation will require space for a monitor, barcode scanner, printer, and desensitizer for the new security system as well as due-date stampers and other supplies. The staffed stations must have knee space for staff sitting on stools and meet ergonomic standards.

The desk must have adequate space and a clear circulation pattern for two queues—one for staffed stations and one for self charge. During peak times, as many as 14 people may queue up to receive the services provided by staff at this desk. Ample space inside the desk for at least 9 book carts, 3 sorting tubs and shelving for reserves/located items.

The Circulation Desk must be adjacent to the staff workroom. The desk should also be placed so that staff can help monitor activity in the building and have visual contact with the information service desk(s).

Conditions in the Existing Building:

- The current desk is 33 inches wide, 38-1/2 inches high, and about 33 feet long with a side wing of about 5 feet. There is one slot in the desk for returning materials.
- Circulation desk was not designed to hold computer terminals, printers, security systems, telephones, and the cash register, and it lacks the proper channels for wiring and cabling.

- There are 4 computers.
- There are 3 adjustable drafting chairs in fair condition.
- There currently are no self-charge machines.
- There is no designated registration area at the desk.
- There is no security system that requires desensitizing materials before checking out.
- One tub is under the desk to catch returned materials, and 3 are used to sort returns and holds. There are also 9 book trucks in use; due to space restrictions, two are in the entry to the workroom and another is on the public floor.
- Space behind the desk is inadequate and crowded.
- Built-in wall shelving for reserves holds 40 linear feet of materials; another 23 linear feet of reserves are on a wooden bookshelf.
- The desk is poorly designed and materials are not stored in an efficient manner.
- There are two telephones on the desktop.
- There is a silent alarm under the desk.
- There is a buzzer from the circulation desk to the workroom.
- Two 40-inch tall and 5-foot long narrow tables guide the formation of the queue to the Circulation Desk and allow those waiting to put their books down.

Recommendations for Change:

- Provide a new Circulation Desk that meets ergonomic standards for a combination of six staff and self-charge workstations (with self-charge likely having 4 or more of the workstations), with adequate space for the electronic equipment, a proper cable-management system, and well-arranged storage space underneath the countertop. There must be knee room under the workstations so staff can sit on the stools. (See attached ergonomics report.) One must be low to meet ADA standards.
- Provide Circulation Desk with enough space to accommodate 2 depressible book tubs and 12 trucks.
- Provide 72 linear feet of shelving for reserves on the public side of the new desk to allow customers to pick up their own holds.
- Evaluate 3 ergonomic, adjustable drafting chairs, and decide whether to replace based upon the results of the evaluation.
- Replace silent alarm.
- Replace the buzzer from the circulation desk to the workroom.
- Provide a total of 7 check-out stations – some staffed and some self-check-out – number to be determined during design.
- Provide space for a single queue for checking out (for 15 people).

Book Drop

The book depository should be convenient to the parking lot and entrance to the building and should empty into a dry, well-ventilated, fireproof room.

Conditions in the Existing Building:

- The book drop room is suitably located and is directly accessible from the circulation workroom, but not convenient to the parking lot.
- There is a sprinkler system.
- There is one slot for all returned materials, which is adequate.
- One tub is kept under the return slot; five other tubs are stored in the room.
- Customer access to the book drop, from the driveway on the Georgia Avenue side of the building, is adequate, but there is no designated 5-minute parking for the book drop.
- Fifty-four staff lockers in 9 linear feet are also located in the book drop room.

Recommendations for Change:

- Provide a 5 minute drop-off parking space by the book drop.
- Keep the book drop in this location because of its proximity to the staff workroom OR move the bookdrop to the parking lot level and add a service elevator.
- Move the lockers to a different location in the workroom.

Information Desks

Currently, the library has an Adult Information Desk and a Children's Information Desk. A unified adult and children's desk is the model for Montgomery County Libraries if it provides for efficient service and allows staff to serve all customers well while monitoring the building. If the desk is to be a combined service desk, there should be 5 workstations, three for Adult librarians and two for Children's librarians. Because of the physical size and the volume of business of this library, it is likely that separate information desks are necessary.

Adult Information

Staff help the public meet their information needs and use library services and resources, both in person and by telephone, from the Information Desk. The desk needs to be highly visible, situated in the overall open area with a well-defined design and signage, and within sight of the Children's Information Desk and the Circulation Desk. The desk must be wired as flexibly as possible to accommodate an electronic future whose dimensions are not specifically definable.

The general public (from elementary students to senior citizens) plus two or more librarians use this space. The Information Desk requires a total of about 100 square feet incorporated into the Adult area.

Conditions in the Existing Building:

- The location of the Information Desk is not obvious to customers entering the library. Customers must walk around it to approach the desk from the front, so often they approach from the side.
- The Circulation Desk is easily seen from the Information Desk, and vice versa; the Children's Desk cannot be seen by someone working at the Information Desk.
- At the Information Desk, there are:
 - 3 computers and 3 barcode scanners
 - 2 telephones and 1 portable telephone
 - 3 chairs for customers
 - 3 adjustable chairs in fair condition for staff workstations
- Desk is 16 feet long with short wings at each end. Underneath are 3 units, each with 2 regular drawers and 1 letter-width file drawer. The desk is designed for 3 staff workstations.
- Desk faces the Adult display and paperback shelving.
- There is no buzzer system to the workroom.
- Behind the desk is a long, low shelf, similar in length and height to the desk itself, which is used to hold 32 linear feet of Ready Reference materials. Two customer chairs face this shelf. On top of the shelf are
 - 1 telephone with programmed numbers for customer use
 - 1 TTY telephone
 - 1 networked printer

Recommendations for Change:

- If possible, combine the information desks. If combining the desks is not possible, place new Information Desk in line of sight to the Children's Desk, the entrance, the Circulation Desk, and as much of the library as possible. It is desirable to be able to monitor the Adult reading and Periodical areas and the Quiet Study Room from this desk.
- Replace the Information Desk with one that meets ergonomic standards. It should be 29" high and 30" deep (see attached report). Need 3 staff workstations (5 workstations would be needed if Adult and Children's Desks are to be combined) with space for 1 PC each and 1 network printer. The desk design should:
 - be of a design that allows for wiring and cable management and for future expansions or additional components as needed;
 - provide sufficient countertop--length and width--to allow the addition of 1 piece of electronic equipment in the future without additional space or wiring;
 - provide openings between the workstations in two or three places for easy access to the collections, for assisting customers or for responding to telephone questions;
 - provide a countertop (approximately 29" high and recessed if necessary) and 2 chairs for customers using the direct dial telephone to other libraries, or needing a high degree of assistance, or to accommodate persons with disabilities;

- include a unit with 1 file drawer and 1 regular drawer to the side of each workstation, plus another unit with regular drawers.
- Evaluate 3 staff chairs with adjustable, ergonomic chairs with armrests, and decide whether to replace based upon the results of the evaluation.
- Replace telephone system with new equipment. Need 2 telephones for staff workstations and 1 direct-dial telephone for customer use. Need telephone sequencer and adequate space for it on or under the desk.
- Provide 240 linear feet of shelving for Ready Reference books and other materials.
- Add a buzzer to the workroom.

Children's Information

Staff members at the Children's Desk assist the public in the use of the library, services, various materials and resources, both in person and by telephone. The desk should be highly visible and situated in the overall open area with well-defined design and signage. A unified Adult and Children's Desk should be considered in the new building if it provides for efficient service and allows staff to serve all customers well while monitoring the building. If the desk is to be a combined service desk, there should be 5 workstations, 3 for Adult librarians and 2 for Children's librarians.

Conditions in the Existing Building:

- The Children's Information Desk has fair visibility from the library entrance but poor visibility from the Circulation Desk and the Adult Information Desk.
- The desk is positioned in the entrance to the Children's area.
- The desk is in an L-configuration, 9-1/2 feet long, with a 3-1/2 foot long wing.
- At the desk there are:
 - 2 computers, 1 barcode scanner, and 1 printer.
 - 1 telephone and 1 portable telephone for staff.
 - 1 programmed book-check telephone for customers.
 - 2 adjustable chairs in fair condition for staff.
 - There are no chairs for customers
- Wire management is poor and the desk is crowded.

Recommendations for Change:

- Combine the Adult and Children's Information desks in an area that serves both populations well.
- If combining the desks is not possible, place new Children's Information Desk in line of sight of the Adult Information desk. It is desirable that staff are able to monitor as much of the library area as possible.
- Replace the Children's Information Desk with a new unit that meets ergonomic standards 29" high and 30" deep with space for 2 Children's librarians (see attached report). The desk should:

- be of a design that allows for wiring and cable management and for future expansions or additional components as needed;
- provide sufficient countertop length and width to allow for 2 PC's and space for a printer;
- provide opening between the work stations for easy access to the collections, for assisting customers or for responding to telephone questions;
- provide space (approximately 29" high and recessed, if necessary) and 1 chair for customers using direct dial telephone to other libraries, needing a high degree of assistance, or to accommodate persons with disabilities;
- include 2 file drawers and 2 regular drawers to the side of each work station plus another unit with regular drawers.
- Evaluate 2 staff chairs with adjustable, ergonomic chairs with armrests, and decide whether to replace based upon the results of the evaluation.
- Replace the telephone system with new instruments. Need 2 phones for staff workstations.
- Locate the Children's Reference area near the Children's Information Desk and into a single, well-defined reference section, but provide 12 linear feet of shelving or a wheel for Ready Reference for heavily used reference materials right behind the Children's Information Desk.

Courtesy Desk

At the Wheaton Library, there is a fourth service desk that is used for Internet, Language Lab and Tutor room sign-up and for computer help. It is staffed by a single person, from either the information or circulation staff, who is infrequently assisted by a volunteer. The desk faces many of the public Internet workstations.

Conditions in the Existing Building:

- The desk is 9 feet long and has two short wings.
- At the desk there are:
 - 1 computer, 1 barcode scanner, and 1 printer.
 - 1 telephone.
 - No chairs for customers.
 - 2 adjustable chairs in fair condition for staff.
- Wire management is poor.

Recommendations for Change:

- Provide a new courtesy desk for 2 staff members to meet ergonomic standards with proper cabling, wiring capabilities, and space for a PC with accessories and a telephone.

- Evaluate 2 ergonomic chairs, and decide whether to replace based upon the results of the evaluation.

Adult Area

This area houses the Adult circulating collection and is used by staff and customers for information searches, browsing, studying, and reading. It houses Adult library materials and shelving, OPAC's, copying machines, and tables and chairs for seating. Adult Services must be maintained as a single core unit for library services in order to provide a logical layout for the public.

All areas must be easily accessible from the Information Desk with as much visibility as possible. It is best to have the Reference collection, OPAC's, and other electronic equipment close to the Information Desk so staff can efficiently help users with their information needs.

Conditions in the Existing Building:

- The current shelving adequately holds most of the collection but is much too tall.
- There is sufficient space between the free standing shelf units.
- Layout of the current collection is not logical because of many changes over the years due to the addition of computers and other changes.
- The Reference collection is located between the Nonfiction and the Health Reference Area. (See General Reference Area.)
- The Health Reference collection, which serves the entire County, is located between General Reference and the Information Desk. (See Health Reference Section).
- The Nonfiction collection, housed on 16 rows of tall free-standing units, is located past the atrium from the library entrance. The space is barely adequate. The collection is shelved on 2634 linear feet of steel shelving.
- The Fiction collection is located behind and to the right of the Courtesy Desk. It is shelved on 1680 linear feet of steel shelving. All genre fiction, including Mystery, Science Fiction, and Western novels, are interfiled with the Fiction.
- The Short Story collection is located at the end of the Fiction run and requires 33 linear feet of shelving.
- The Large Type collection is located continues on the shelving after the Short Story run and requires 126 linear feet of shelving.
- Oversize books and book/tape kits are currently shelved on a wide windowsill behind the Nonfiction collection and currently require 10 linear feet.
- Periodicals See Periodical Section.
- Mass market paperbacks are on 8 free-standing, wheeled wire shelving units, totaling 321 linear feet of shelving.
- The Reading List collection of paperback and Cliffs Notes is adjacent to the Young Adult collection. It is on 170 linear feet of wire shelving, both free-standing and wall units.

- Foreign Language books are shelved on 353 linear feet of shelving, along with 36 linear feet of periodicals in foreign languages. This collection is in the entrance to the Fiction area near the Courtesy Desk.
- Foreign Language Learning kits are on 24 linear feet of wire wall shelving, to the left and rear of the Information Desk and near the Nonfiction collection.
- Literacy and English Language Learning collections are near the entrance to the Language Computer Lab. It is housed on 48 linear feet of metal shelving, plus a free-standing unit for hanging sets that holds 15 linear feet of materials.
- Books on Tape are housed on wire wall units, requiring 138 linear feet, and Books on Compact Disc are similarly shelved in 30 linear feet of space. These collections are opposite the Information Desk and past the displays.
- Music compact discs (and a few cassette tapes) are shelved on two free-standing wire units, totaling 80 linear feet. The CD's are tightly packed, making browsing difficult.
- There are 9 linear feet of adult seasonal books in basement storage.
- Displays are all in the area of the Information Desk and the Circulation Desk. There is adequate floor space for displays.
 - New hardbacks are on 60 linear feet of free-standing wire shelving.
 - New paperbacks are on endcaps of free-standing wire shelving.
 - Library Express books are on 24 linear feet of wire wall shelving.
 - Express videos are on 12 linear feet of wire wall shelving.
 - A themed display is on 12 linear feet of wire wall shelving; there are 18 additional linear feet of multi-purpose free-standing display.
 - Librarians' Choice is on 32 linear feet of free-standing wire shelving.
- Adult reading areas are located near the English Language Learning Area, near the study rooms, in the Fiction area, and near the Information Desk. Altogether there are
 - 4 round tables in fair condition
 - 3 large study tables in fair condition
 - 1 small study table in fair condition
 - 1 desk in fair condition
 - 33 straight chairs in fair condition
 - 12 loungechairs in fair condition
 - 4 side tables

Recommendations for Change:

- Design each collection in the Adult area to be well defined and signed to enable customers to find specific collections easily.
- Evaluate all tables with smaller ones to seat 40 people (10 tables for 4) if condition warrants.
- Replace the shelving, keeping the same capacity.
- Evaluate all chairs (40), and decide whether to replace based upon the evaluation.
- Evaluate 12 lounge chairs, and decide whether to replace based upon the evaluation.

Children's Area

The Children's room currently occupies 2905 square feet, which is inadequate. In the first half of FY03, Children's materials have been 46.2% of all circulating items (adult was 52% and young adult was 1.8%). The allocation of space for the Children's versus the Adult circulating collection should be reconsidered before renovation.

Conditions in the Existing Building:

- The Picture Book area is too small and should be more inviting.
- More tables and chairs are needed in the Picture Book area. Current furniture includes:
 - 4 tables in poor condition
 - 16 chairs in poor condition
 - 1 loveseat in poor condition
 - a cheerful pictorial area rug
- There is enough seating for upper elementary students. Furniture for elementary age children includes:
 - 5 tables in fair condition
 - 18 chairs in fair condition
 - 1 armchair in poor condition
 - 1 side table in fair condition
- There are 3 catalog-only OPAC's; 4 Internet computers, 1 CD-ROM computer workstation, and 1 printer for public use in the Children's Area.
- There are 6 computer tables and 7 desk chairs at the workstations.
- There are 291 linear feet of Picture Books in the reading area. There are an additional 18 linear feet of Board Books and Small Books. No picture books are in storage, with the exception of the Holiday Books noted below.
- There are 871 linear feet of Nonfiction.
- There are 375 linear feet of Fiction and Blue Tape easy reader books.
- There are 56 linear feet of Yellow Tape beginning reader books.
- There are 200 linear feet of Paperbacks on wire shelving around columns plus one-free standing unit.
- There are 9 linear feet of Ready Reference, which is on the shelf closest to the Children's Desk. Other juvenile reference materials are shelved in the General Reference collection.
- There are 30 linear feet of Parent/Teacher books.
- There are 16 linear feet of Periodicals, shelved on a revolving 1-foot square display, holding 16 titles.
- There are 96 linear feet of Videos.
- There are 14 linear feet of Audiocassettes.
- There are 54 linear feet of Taped Books and Books on CD, plus 3-1/2 linear feet of picture book and audiocassette combination kits.
- There are 6 linear feet of music CD's.
- There are 84 linear feet of Foreign Language books and media.
- There are 12 linear feet of Foreign Language learning media.
- There are 135 linear feet of Holiday Books in the basement storage area.

- There is a glass display case for collections in the entryway to the Children's area, which is 3 feet wide, 43 inches high, and 1 foot deep.
- There is a small aquarium at the entrance to the Children's area. It is 22" x 16" x 21".

Recommendations for Change:

- Define the Children's area, and consider relocating this area.
- Allocate more of the overall library space to the children's area.
- Replace the shelving with a new efficient system of equal capacity.
- Provide acoustical insulation to lessen the noise.
- Provide a defined Picture Book area with 5 tables, 20 chairs, and 2 loveseats.
- Evaluate the following in the upper elementary seating area, and replace if condition warrants.
 - 5 tables
 - 20 chairs
 - 2 lounge chairs
 - 1 end table

Children's Programming Space

Conditions in the Existing Building:

- The Children's Program room is 20 feet by 22 feet. Picture book murals are painted on the walls.
- There is a storage closet, 6 feet by 9 feet, with 75 linear feet of shelving.
- The room contains
 - 25 stackable chairs
 - 4 folding tables
 - 1 round table
 - 1 wall telephone
 - 2 flannel boards

Recommendations for Change:

- Refurbish and repaint the room.
- Provide a wall screen for films.
- Provide a chalkboard.
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 25 stackable chairs
 - 4 folding tables
 - wall phone

Children's Room Storage

Storage for Children's materials such as overflow Picture Books, seasonal books, and programming equipment is essential.

Conditions in the Existing Building:

- Storage is in two places: the basement of the building (135 linear feet) and the storage closet (75 linear feet) described above under Children's Programming Space.

Recommendations for Change:

- Consolidate storage in one place convenient to the children's room.
- Provide space for all of the children's materials (except some seasonal) in the public area.

Young Adult (YA) Collection

Young adult customers use this area to study and browse for books and other materials that are displayed for their informational, recreational, and homework needs. This area should be incorporated into the Adult reading room. It should be well defined and attractively designed for young adults in an informal manner with comfortable seating.

Conditions in the Existing Building:

- YA collection is currently located between the reference and periodical areas, in sight of the Information Desk.
- YA hardback fiction and nonfiction are shelved on 2 wire racks on walls, holding 88 linear feet.
- Paperback fiction and nonfiction are located on 4 wire racks around a pole, holding 56 linear feet
- There is not a display area, and display space and shelving is needed.
- There is a rotating 1-foot square periodical display unit that holds 16 titles (16 linear feet equivalent).
- The area has the following furnishings:
 - 3 tables in good condition
 - 10 chairs in good condition
 - 2 loveseats
 - 1 double-ottoman
 - 1 low cube table
 - 1 higher cube table
 - 1 display shelf in good condition holding 10 linear feet
 - electronic wall sign

Recommendations for Change:

- YA should be separated from the Children's area and part of the Adult area, though in a clearly defined space.

- Replace and provide adequate shelving to meet demands.
- Collection size described above.
- Replace display shelf with new one with 12 linear foot capacity.
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 3 tables
 - 12 chairs
 - lounge seating for 6
 - 2 end tables

General Reference Area

The combined Adult and Children's Reference collection is located to the side and rear of the Information Desk and beyond the Nonfiction Area from the Children's Desk. It is not visible from either the Adult or Children's Information Desks.

Conditions in the Existing Building:

- The General Reference collection consists of 637 linear feet of materials, shelved on 43" high double-shelf units. About 52 linear feet of the 637 are on top of the shelving between bookends.
- A Business Reference collection of 18 linear feet is on a tall metal bookshelf and adjacent wall shelf.
- A Consumer Reference collection, which is mostly periodicals, is on 24 linear feet of wire shelving around a pole.
- 4 OPAC's are adjacent to the Reference collection.
- 6 chairs in poor condition.
- 1 large study table.

Recommendations for Change:

- Relocate general reference near the Information Desk.
- Replace the shelving with shelving with same capacity.
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 6 chairs with 8 new chairs
 - 1 large table with 2 tables for 4 people

Health Reference Area

Wheaton has the Health Reference Specialty for the County. Wheaton staff have been trained in this specialty. The collection features circulating and reference books on health-related topics as well as periodicals and media materials. It is located between the General Reference Collection and the Adult Nonfiction.

Conditions in the Existing Building:

- The Reference materials in the Health collection are on 120 linear feet of 43"-high shelving.
- The Circulating health materials require 606 linear feet, currently on a mix of tall steel shelving and tall wooden bookshelves.
- New health books are displayed on 24 linear feet of wire wall shelving.
- Health periodicals are on 180 linear feet of tall steel shelving.
- No OPAC's are adjacent to the Health Reference area.
- Furniture includes:
 - 2 tables
 - 8 chairs
 - 2 lounge chairs
 - 1 side table

Recommendations for Change:

- Define the Health Information Area.
- Replace the shelving with units of the same capacity.
- Provide display shelving (24 linear feet capacity).
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 2 tables
 - 8 chairs
 - 2 lounge chairs
 - 1 end table

Periodical Collection

The Periodical Collection is used by the general public and staff for browsing, borrowing, and research. Customers of all ages may use online or print indices to access articles by subject. The library has sufficient shelf space to house magazines, but there should be more space available to provide a relaxing and informal area with comfortable chairs for customers. There should also be some computer workstations to access electronic periodicals and indices.

Conditions in the Existing Building:

- Current newspapers are located on a free-standing display unit, 18" wide by 32" long.
- Back issues of the newspapers are in boxes on 63 linear feet of shelving.
- Current magazines are shelved on 198 linear feet of metal display shelving.
- Back issues of magazines in boxes are on 303 linear feet of metal shelving.
- Consumer periodical are located in the General Reference Area (see above).
- There are 36 linear feet of periodicals in foreign languages, but they are shelved with the foreign language books (see above, under Adult Area).
- Periodical indexes and public planning documents are shelved on 75 linear feet.

- Telephone books are on a book truck and require 8 linear feet of shelving.
- There is 1 atlas stand with oversize atlases in this section.
- Furniture in the periodical area includes:
 - 1 large study table in fair condition
 - 1 round table in fair condition
 - 1 desk
 - 5 lounge chairs in fair condition
 - 9 desk chairs
 - 1 side table in fair condition

Recommendations for Change:

- Newspapers and periodicals should be consolidated into the same area and periodical area should be well defined with comfortable seating for leisure browsing with a small table for placing magazines:
- Replace shelving with modern, efficient system designed for periodical display and storage with the same capacity as the current units.
- Replace atlas stand.
- Evaluate and decide whether to replace based on the results of the evaluation:
 - 2 study tables
 - 8 desk chairs
 - 5 lounge chairs
 - 1 end table

Public Access Catalogs (OPAC's)

Currently, the public access catalogs are located in 1 large area within the Adult space and in 3 areas in the Children's room, and are used to locate library materials for the local branch and the whole library system. The Montgomery County Public Libraries' vendor for the OPAC is Sirsi Corporation. The OPAC's provide connection to the Internet via Sailor (the Maryland Library Internet Node). They also provide access to numerous information sources such as encyclopedias, magazine indices, and directories, via SIRSI, Sailor, and various database vendors. The OPAC's are the main reference and information tool for staff and library customers. The system has changed dramatically in the last several years and will continue to do so. The area must be designed for continuous change and growth.

Customers use the OPAC area, often with the assistance of staff. It should be highly visible, well signed, and positioned to avoid glare on the screens. OPAC's should be in a place with ample space for traffic and convenient to the Information Desk.

Conditions in the Existing Building:

- OPACs are connected with a wireless connection (electrical power is necessary)
- There are a total of 35 OPAC's for public use in the building, as follows:

- 28 in adult areas (23 between the Courtesy and Adult Information desks, 1 near the stairway entrance, 4 near reference areas).
 - 7 in children's area
- Wheaton has averaged 31.7 Internet sign-ups per public service hour for FY03 through March, the second highest average in the system.
- The number of OPAC's is inadequate and doesn't meet public demand.
- There are 4 networked printers in the Adult area and one networked printer in the Children's area.
- The computer furniture in the Children's area is included above under Children's Area (6 computer tables, 7 chairs).
- The computer furniture in the Adult area is as follows:
 - 11 six-foot tables
 - 7 smaller tables
 - 23 chairs

Recommendations for Change:

The 35 existing public OPAC's, plus an additional 5 workstations—total of 40 OPAC's—are required for the Adult and Children's areas in the renovated library. 4 should be on stand-up workstations, and 36 should be on sit-down workstations. Six printers are needed for 40 PCs.

- Position OPAC stations in sight of Information Desk(s).
- Workstations need capability for wire management.
- Evaluate workstations for all PCs and additional ones; and decide whether to replace based on the results of the evaluation:
 - 40 workstations (4 stand up)
 - 36 chairs
- Evaluate 6 printer stands, and decide whether to replace based on the results of the evaluation.
- All tables in the building should have the capability of having power and cables for future PCs.

Copy Machines

Conditions in the Existing Building:

- There are 4 copy machines. One is near the stairs, two are in the Health Information area, and one is behind the Courtesy Desk.
- The copy machines are sufficient to meet public demand.

Recommendations for Change:

- Provide space and dedicated circuits for each copy machine if they are relocated, exact number of machines to be determined (likely fewer than 4).

English Language Learning Lab

In addition to more traditional library services, Wheaton houses an English Language Learning Lab. Computers in the lab run interactive educational software and have headphones and microphones. The lab serves county residents whose first language is not English. People studying English can progress through the computerized lessons at their own pace. The lab is open for self-guided learning whenever the library is open, and volunteers are available to provide assistance about 25% of the time.

Conditions in the Existing Building:

- The room is 11-1/2 feet by 16 feet and is located near the Literacy and English Language Learning materials and the Courtesy Desk.
- There are 3 small windows.
- There are 7 computers, one of which is a local area network server.
- There is one combination TV/VCR.
- There are 6 chairs for computer users and 3 additional chairs.
- There is 1 printer.

Recommendations for Change:

- Keep (perhaps relocate) a Language Learning Lab with similar space.
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 7 computer workstations
 - 10 chairs
 - printer stand

Quiet Study Room

Wheaton has a Quiet Study Room with carrels and tables. This space is particularly important in areas like Wheaton, where many people live in apartments and need a quiet place to work and study.

Conditions in the Existing Building:

- The room is about 30 feet by 30 feet.
- There are 2 tables with 8 chairs.
- There 24 carrels with 24 chairs.
- There are windows and an emergency exit door.
- There are two standing floor fans because ventilation is poor.

Recommendations for Change:

- Keep the Quiet Study Room and consider having two – one for quiet study only and one for people using laptops.
- Provide electrical outlets for laptop computer use and other conduits for power and cables for computers at 10 of the carrels.

Group Study Room

Wheaton has one group study room, where up to 12 people can meet for up to two hours. It is in use approximately 75% of the library's open hours. It is located between the two pairs of tutoring rooms, halfway between the Courtesy Desk and the Periodicals Area.

Conditions in the Existing Building:

- The room is 12 feet by 20 feet.
- There are 2 small windows.
- There are 2 adjacent tables.
- There are 12 chairs.

Recommendations for Change:

- Provide space for a group study room that will seat 12 people.
- Evaluate and decide whether to replace based on the results of the evaluation:
 - 2 tables for 6
 - 12 chairs

Tutoring Rooms

Wheaton Library has four rooms for tutoring. They are available on a first-come, first-served basis, and each is in use about 48 hours per week. They are located between the Courtesy Desk and the Periodical Area.

Conditions in the Existing Building:

- Each of the four forms is 8 feet by 8 feet.
- Each tutoring room has 1 table.
- Each tutoring room has 2 chairs.
- There are no windows in these rooms.
- Each has an electrical outlet.

Recommendations for Change:

- Provide space for 4 tutoring rooms with room for up to 3 people in each.
- In each, evaluate and decide whether to replace based on the results of the evaluation:
 - 1 table (total of 4)
 - 3 chairs (total of 12)

Staff Conference Room

A staff conference room is necessary for small staff meetings and group projects.

Conditions in the Existing Building:

- The Staff Conference Room is (12'x14') in the public area near the Tutor and Group Study Rooms.
- There are 2 tables
- There are 11 chairs.

Recommendations for Change:

- Move the Staff Conference Room to the Staff Work Area on the lower level.
- Evaluate and decide whether to replace based upon the results of the evaluation:
 - 1 or 2 tables with space for 8 people
 - 8 chairs

ADMINISTRATIVE OFFICES AND STAFF WORK SPACE

Note: No office spaces will exceed the MC DPWT office space standards.

Library Manager's Office Space

The Library Manager is responsible for all branch operations. A private workspace is essential. The Library Manager's office is off the Circulation Workroom.

Conditions in the Existing Building:

- The current office is 11 feet by 10 feet. It has 2 large tinted windows.
- It is furnished with:
 - 30 linear feet of wall shelving.
 - 1 L-shaped desk in poor condition.
 - 1 4-foot long computer desk.
 - 1 ergonomic chair in good condition.
 - 1 non-adjustable chair in poor condition.
 - 1 reading chair in poor condition.
 - 1 3-drawer, three-foot long, legal-size filing cabinet.
 - 1 bulletin board.
 - 1 computer for word processing, e-mail, Internet, and circulation.
 - 1 telephone.

Recommendations for Change:

- Replace desk with one of executive size with space for a PC and with locking drawers for safekeeping of confidential staff records.
- Evaluate the ergonomic chair, and decide whether to replace based upon the results of the evaluation.

Senior Librarian's Office Spaces

There are two Senior Librarians. They oversee the work of the Adult services staff, supervise the Children's staff, and are responsible for the Adult Reference/Circulating Collections and the Health Information Service. As supervisors responsible for PPEs, a private workspace is essential. This office is behind the Young Adult collection.

Conditions in the Existing Building:

- Currently there is an office for one of the Senior Librarian's that is about 10 feet by 10 feet. It has no windows; and is on the opposite side of the public space as the other staff offices.
- One shares an office with the Library Assistant Supervisor.
- That one is furnished with:
 - 21 linear feet of shelving on free-standing bookcase

- 1 L-shaped desk in poor condition
- 1 4-foot desk
- 2 ergonomic chairs in good condition
- 1 3-drawer, three-foot long, legal-size filing cabinet
- 1 bulletin board
- 1 computer for word processing, e-mail, Internet, and circulation
- 1 small computer table
- 1 telephone

Recommendations for Change:

- Consolidate office space in one staff area instead of on opposite sides of the public area.
- Provide an office for each Senior Librarian.
- For each:
 - Replace desk and filing cabinets with integrated system furniture that uses space efficiently for two staff members with a shared PC workstation.
 - Evaluate 2 ergonomic chairs, and decide whether to replace based upon the results of the evaluation.
 - Evaluate bulletin board and decide whether to replace based upon the results of the evaluation.

Adult Information Staff Office Space on Library Floor

Two Adult Library Associates have workspace in a small office adjacent to the adult Senior Librarian's, described above.

Conditions in the Existing Building:

- The current office is about 10 feet by 10 feet. It has no windows.
- It is furnished with:
 - 2 ergonomic chairs in good condition
 - 2 desks
 - 2 bookshelves totaling 36 linear feet
 - 2 wall shelves totaling 30 linear feet
 - 1 computer for word processing, e-mail, Internet, and circulation
 - 1 small computer table
 - 1 telephone
 - 1 bulletin board

Recommendations for Change:

- Consolidate office space in one staff area instead of on opposite sides of the public area.

- Provide office space for each.
- For each:
 - Replace desk and filing cabinets with integrated system furniture that uses space efficiently for two staff members with a shared PC workstation.
 - Evaluate 2 ergonomic chairs and decide whether to replace based upon the results of the evaluation.
 - Evaluate bulletin board and decide whether to replace based upon the results of the evaluation.

Adult Information Staff Office Space off Circulation Workroom

Two Adult Librarians have workspace in an office off the Circulation Workroom adjacent to the staff computer room.

Conditions in the Existing Building:

- The current office is 9-1/2 feet by 10 feet. It has no windows.
- It is furnished with:
 - 1 ergonomic chair in good condition
 - 1 non-adjustable chair
 - 2 desks, one of which is L-shaped
 - 1 bookshelf totaling 21 linear feet
 - 1 wall shelves totaling 30 linear feet
 - 2 computers for word processing, e-mail, Internet, and circulation
 - 1 small computer table
 - 2 telephone
 - 1 bulletin board

Recommendations for Change:

- Provide separate office for the Adult Information staff.
- Replace desk and filing cabinets with integrated systems furniture that uses space efficiently for two staff members with a shared PC workstation.
- Evaluate 2 ergonomic chairs and decide whether to replace based upon the results of the evaluation.
- Evaluate bulletin board and decide whether to replace based upon the results of the evaluation.

Children's Services Librarians' Office Space

The Children's Services Librarian oversees the work of the Children's services staff and has responsibility for the entire Children's circulating and reference collection.

Children's librarians produce a great deal of public programming. An enclosed workspace is essential for the group.

Conditions in the Existing Building:

- Four Children's librarians share workspace in a 10-foot by 14-foot office off the Children's area.
- Furnishings include:
 - 4 desks (built-in counters)
 - 4 adjustable chairs
 - Wall shelving above all desks totaling 100 linear feet
 - 1 computer
 - 1 telephone

Recommendations for Change:

- Provide separate office for the Children's Information staff.
- Replace desk and filing cabinets with integrated systems furniture that uses space efficiently for 4 workstations and 2 shared PCs
- Evaluate 4 ergonomic chairs and decide whether to replace based upon the results of the evaluation.

Circulation Supervisor's Office Space

The Circulation Supervisor is responsible for supervising the entire circulation staff and overseeing the circulation functions of the library. A private workspace to be shared with one LAII is essential. Currently, a Senior Librarian shares this office with the Circulation Supervisor.

Conditions in the Existing Building:

- The office is adjacent to the Circulation Desk and has large windows facing the library floor.
- The office is 9 feet by 12 feet.
- Furnishings include:
 - 2 L-shaped desks, each 5 feet long with a 3'4" wing
 - 2 ergonomic chairs in fair condition
 - 1 3-1/2-foot table
 - 1 26"-wide computer table
 - 2 computers
 - 2 telephones
 - 2 bulletin boards
 - 1 safe, bolted to floor
 - 30 linear feet of wall-mounted shelving

Recommendations for Change:

- Provide a separate office for the Library Assistant Supervisor.
- Replace desk and filing cabinets with integrated systems furniture that uses space efficiently for one staff member.
- Evaluate 4 ergonomic chairs and decided whether to replace them based upon the results of the evaluation.

STAFF WORKROOM AND FACILITIES

General Workroom

The general workroom is a large open space that provides workstations for non-supervisory staff, space for circulation back-room functions (check-in, processing of new materials, mending, weeding, etc.), space for volunteers, and staff OPAC's (used for circulation processes, word processing, Internet, e-mail).

Conditions in the Existing Building:

- The workroom is a large rectangular room, 31 feet by 32 feet, currently providing workspace for 3 information staff and 13 circulation staff. In addition, 15 pages and volunteers also work here on occasion.
- There are 6 small windows that are operable but hard to reach.
- There is no privacy for people at the workstations.
- There are 6 workspaces along a built-in counter on the back wall. Five of them have a built-in 3-drawer unit and 5-1/2 feet of linear wall shelving. One has a portable 3-drawer unit.
- There are 5 workspaces at individual 3-drawer 4-foot long desks in the center island.
- There are 15 chairs: 9 in poor condition, 6 in good condition.
- There are 3 six-foot tables for processing books and periodicals.
- There are 3 five-foot tables that hold computers.
- There are 4 computers.
- There may be up to 12 book trucks and up to 17 tubs in the room at any time.
- There are 63 linear feet of shelving for library and office supplies in built-in wooden cabinets and an additional 6 linear feet in a free-standing cupboard.
- There are four low wooden bookshelves, totaling 48 linear feet of shelving.
- There is one 3-drawer, 3-foot long, legal-size filing cabinet.
- There are 2 small 15-inch wide filing cabinets.
- There are 1 bulletin board and 2 whiteboards for posting schedules and official library notices.
- There is a mailbox unit for staff, 3-1/2 feet high and about 5 feet wide on a 5-foot table.

- There is a wall file, 5-1/2 feet tall, 10 inches wide, and 4" deep, serving as a mailbox for pages.
- There is no designated area for book trucks and tubs

Recommendations for Change:

- Redesign the space to accommodate 18 full-time and part-time staff in individual workstations each with its own defined space and with ergonomic chairs.
- Provide 2 tables or counter space for book processing.
- Provide space for shared PC use (4).
- Evaluate the condition and decide whether to replace based upon the evaluation:
 - Mailboxes
 - Ergonomic chair
 - Bulletin boards and white boards
 - Filing cabinets
 - Shelving with efficient system shelving with capacity of the existing shelving.
- Provide a designated corral area for book trucks and tubs.

Small Workroom

Conditions in the Existing Building

- A 9-1/2 by 10 foot office off the staff workroom, this room is also referred to as the Staff Computer Room. This windowless workspace is shared by all staff members.
- It is furnished as follows:
 - 2 desks
 - 2 tables
 - 30 linear feet of shelving for storage
 - 1 computer
 - 1 telephone
 - 1 emergency telephone
 - 1 typewriter
 - 1 flatbed scanner
 - 1 fax machine
 - 2 printers
 - 3 non-adjustable chairs in poor condition
 - 1 bulletin board
 - 1 easel
 - 1 microwave oven

Recommendations for Change:

- Consider consolidating this space with the existing workroom.
- Provide appropriate furniture to accommodate the equipment listed above.

Closed Stacks and Storage

The major storage area is in the basement.

Conditions in the Existing Building:

- The basement has serious water problems. It is always damp, and sometimes it floods.
- Basement storage is shared by the Friends of the Library for its bookselling operation (requiring about 400 square feet) and by the Literacy Council.
- The library uses 100 linear feet of shelving for office supplies, and the Health Information Center is using an additional 275 linear feet of storage for pamphlets and supplies, which could be stored much more compactly.
- The storage area holds 135 linear feet of juvenile holiday and seasonal books as well as 9 linear feet of adult season books, for a total of 144.
- Storage space is ample but insecure because of flooding problems.
- There are a telephone and a fire extinguisher.
- There are about 30 shelving units of various descriptions.
- There is a tall map case for storing posters and art paper.
- There are two filing cabinets and 2 media carts.
- There are 2 projectors and a TV/VCR
- There are 46 boxes of office paper.

Recommendations for Change:

- The basement water problems must be fixed in the renovation to make is a better, safer place to store materials.
- Redesign the area for efficient, effective storage.
- Reuse existing filing cabinets, carts, etc. from this area and existing staff offices as needed.
- Reuse some of the shelving from the current public area in this space to shelve materials.

Delivery Area

Libraries receive daily internal deliveries of materials and mail from the central offices and other libraries in the system. Delivery trucks bring tubs (laundry carts) of materials.

Conditions in the Existing Building:

- Deliveries are made through a public entrance and then directly into a “staff only” door into the workroom.
- Up to 4 tubs await pick-up in the workroom next to the door.

Recommendations for Change:

- Provide a separate delivery and staff entrance into the workroom.
- Provide enough space for 6 tubs.

Staff Kitchen and Lounge

The staff room is on the ground level of the building. Staff members generally have a one-half hour meal break and eat most of their meals in the library staff room. This room is also used for breaks and sometimes for staff meetings. The staff and Library Advisory Committee store hospitality items in this area.

Conditions in the Existing Building:

- The kitchen area is approximately 11 x 11 feet, and the carpeted eating and lounge area is approximately 370 square feet. The oddly-shaped room has a curving wall of glass-block windows.
- There is a 7 x 7-foot coat closet, with no door, housing a 4-drawer filing cabinet belonging to the library's Staff Association.
- The kitchen area is furnished as follows:
 - 1 old stovetop in poor condition.
 - 1 old refrigerator in poor condition.
 - 2 microwave ovens: one countertop in fair condition and one over-range in very poor condition.
 - 1 toaster/oven in poor condition.
 - no dishwasher.
 - a 12-inch deep stainless steel sink.
 - 20-1/2 linear feet of shelving in wall cupboards above the sink and refrigerator.
 - one silverware drawer and 13 linear feet of shelf space in cupboards beneath the countertop.
 - There is one free-standing metal cupboard with 9 linear feet of shelving.
- The eating and lounge area is furnished as follows:
 - one upholstered sofa in poor condition, with two side tables.
 - 9 chairs in fair to poor condition.
 - two tables
 - one 27"-wide wooden shelf unit, holding and one small countertop microwaves in fair condition.
 - one snack vending machine.
 - one fire extinguisher.
 - one telephone
 - no cable outlet for television.
 - two large bulletin boards.

Recommendations for Change:

- Replace the Kitchen and lounge area equipment and appliances.
- Provide a dishwasher.
- Replace the stovetop with a microwave oven (purchase microwave with staff funds).
- Provide a small kitchenette on the second floor off of the workroom for quick breaks and snacks.
 - Provide a sink, counter, electrical outlets for coffee, tea, snacks
 - Provide a small refrigerator and cupboard
- Evaluate the tables and chairs. Decide whether to replace them based upon the results of the evaluation.

Staff Restrooms

Conditions in the Existing Building:

- Access to one of the staff restrooms is through the staff kitchen. It restroom is old and need complete refurbishing.
 - The restroom is about 5 x 11-1/2 feet. There is one toilet and one sink.
 - There is no ventilation in the staff restroom.
 - Restroom does or does not meet ADA requirements.
 - 1 restroom is on the lower level.
- There is a second staff restroom on the second floor near the staff workroom.
 - This staff restroom is smaller and poorly ventilated and does not meet current ADA standards.

Recommendations for Change:

- Review Architect's attached renovation report/drawing.
- Provide 2 new, refurbished staff restrooms with proper ventilation on the lower level.
- One restroom must be ADA accessible.
- Provide 1 new, refurbished staff restroom on the second floor that meets ADA standards.

Janitorial Closet

Conditions in the Existing Building:

- There is a janitorial closet by the restrooms at the entrance to the library on the main floor. It is 5 x 8 feet, with a mop sink, a wall-mounted cleaner dispenser, and 14 linear feet of 2-foot deep shelving.
- Janitorial supplies are also kept on the ground floor in the mechanical room, where the janitor's also have lockers.

Recommendations for Change:

- Provide janitorial closet, with updated fixtures.
- Separate the janitorial supply and locker room from the mechanical room.

PUBLIC MEETING ROOMS AND RESTROOM FACILITIES

Meeting Rooms

Library meeting rooms are sometimes used when the library is not open. Thus, the public must be able to enter and leave the meeting rooms even when the library itself is closed and secured.

Conditions in the Existing Building:

- The large meeting room:
 - Is about 1112 square feet, which is an adequate size.
 - Has an ISDN and OPAC-SIRSI connection.
 - Has eight 6-foot folding tables in fair condition.
 - Has eighty stacking metal chairs in fair condition.
 - Has a wooden lectern in poor condition.
 - Does not have a closet or a storage area for chairs and tables.
 - Has a telephone.
 - Has two whiteboards.
 - Has a glass exterior door, with three steps leading to it both the outside and the inside, impeding access for wheelchairs.
- The small meeting room:
 - Is 320 square feet, which is an adequate size.
 - Has 12 stacking metal chairs in fair condition.
 - Has 1 5-foot folding table in fair condition.
 - Does not have a closet or a storage area for chairs and tables.
 - Has a telephone.
 - Has a window to the indoor entryway of the large meeting room.

Recommendations for Change:

- Recondition both meeting rooms.
- Evaluate the existing (9) meeting room tables and decide whether to replace them based upon the results of the evaluation. If replaced, purchase lightweight, study aluminum folding tables.
- Evaluate all meeting room chairs and decide whether to replace them based upon the results of the evaluation.
- Evaluate white boards and decide whether to replace them based upon the results of

the evaluation.

Public Restrooms

Conditions in the Existing Building:

- Ventilation in the restrooms is poor.
- There are two sets of Men's and Women's restrooms, one on each floor.
 - Men's room on the ground floor is 195 square feet with 1 wheelchair-accessible stall, 2 sinks (one low), and 2 urinals (one low). There is no diaper table.
 - Women's room on the ground floor is 195 square feet, with two stalls and two sinks; one of each is wheelchair-accessible. There is no diaper table.
 - Men's room on the library floor has 2 urinals, 2 stalls (one of which is wheelchair-accessible), 3 sinks, and a wall-mounted diaper table. The room is about 154 square feet.
 - Women's room on the library floor has 3 stalls, one of which is wheelchair-accessible. There are three sinks, one of which is set high. There is a pull-down diaper-changing table mounted on the wall. The room is about 11 x 14 feet.
- The number of stalls and urinals is inadequate and not up to standards.
- There is a water fountain outside each pair of restrooms, but they are old and need to be replaced.
- Rooms barely meet ADA requirements and should be redesigned.

Recommendations for Change:

- Improve or add adequate ventilation units to rooms.
- Bring the number of stalls in all restrooms up to standards.
- Replace all water fountains.
- Bring restrooms up to ADA code.

Friends of the Library Book Sale Room

Conditions in Existing Building:

The ground floor houses the County's Friends of the Library Book Sale, which has a large room of approximately 4600 square feet. There is an outside entrance to the Book Sale Room as well as an entrance near the base of the stairs to the library. In addition, the Friends of the Library use basement storage space, as mentioned above, of about 400 square feet.

Recommendations for Change:

- The Book Sale Room should be separated from the Library as well as the mechanical room. It needs its own storefront entrance from the parking lot.
- Provide additional storage space. (see Architect's attached renovation report/drawings).

Literacy Council of Montgomery County

Conditions in the Existing building:

- The Literacy Council of Montgomery County currently maintains its offices on the ground floor of the Wheaton Library. The space is about 1500 square feet, including a central area with seven small offices. The Council will relocate to the new Rockville Library, probably by 2007.

Recommendations for Change:

- Use the space to add another public meeting room space in the building. A larger meeting room is needed to accommodate popular library programs. Wheaton will also have the capability for teleconferences by early FY04, which will increase popularity of limited spaces.

**ENERGY PROGRAM OF REQUIREMENTS
for Wheaton Library
11701 Georgia Ave., Wheaton, MD**

INTRODUCTION

Energy efficiency and low operating costs are important design goals for this facility. The designer is required to meet an energy consumption budget on the facility as set by the Owner. The designer must provide the expertise, teamwork, and quality control to meet the energy consumption budget simultaneously with fixed cost of construction and all program requirements.

The designer shall specifically follow all design procedures of DFS *Energy Design Guidelines* (EDG) latest CD-ROM edition. Major program elements in the EDG are as follows:

- Overall Design - Design for energy efficiency must be controlled and verified by following the "road map" of required meetings, reports and coordination points during each phase of design. Technologies and standards to be used are set by building size.
- Energy Analysis - Hourly energy analysis is required to demonstrate compliance with energy budget and to perform life-cycle-cost analysis. Analysis shall include a "base" mechanical system and at least three "alternatives". More on this item in "Energy Budget" below.
- Thermal Envelope Design - Envelope must be well insulated, free of drafts and cold interior surfaces, and provide natural lighting into the building. Use ASHRAE 90.1-1999 component packages for window area and insulation levels, NIST required details for air-tightness and thermal integrity, and recommended glass and frame requirements. Window placement and materials must be vandal resistant.
- HVAC Design - Mechanical design must be efficient and readily maintainable. The consultant must follow guidelines on plant and system types, high-efficiency equipment, variable air volume systems in accordance with the latest version of ASHRAE 90.1, to include condensing boilers, high efficient cooling equipment, using variable flow pumping with reverse return and 2-way valves for coils, and not to exceed allowable fan HP/ CFM in accordance with energy efficient distribution system design standards. The sizing of cooling and heating equipment shall be based on calculated monthly building profiles (ton-hours, BTU-hrs). Premium efficiency motors shall be specified for all pumps and fans.
- Energy Management Systems - DDC controls are required for automatic temperature control and energy management of HVAC systems with interface to a

lighting management system for ON/OFF scheduling of exterior and interior lights.

- Ventilation & IAQ - Required use of the latest version of ASHRAE Standard 62.
- Lighting Design - Lighting design must be high quality meeting IES recommended light levels on tasks, visually comfortable, free of reflected glare, using high-efficiency lamps, ballasts, fixtures and controls as specified in Energy Design Guidelines. Establish a wattage budget based on the most efficient lighting system with the appropriate color rendering. Natural lighting must be used whenever possible in coordination with day lighting sensors. The use of T-5 high output fluorescent bulbs shall be considered in lieu of metal halide type bulbs. The overall wattage shall not exceed values established by Section 9 on ASHRAE Standard 90.1-1999. The use of “daylighting” techniques must be explored.

ENERGY BUDGET

The Owner requires that building designs meet preset energy budgets. For this building, an energy budget of **59 Thousand Btu per gross interior square foot per year** has been set for the facility. The Architect / Engineer must analyze the facility as a whole for energy conservation opportunities and include program items for the project necessary to meet the energy budget.

The budget figure includes all metered energy use at the site, including energy for HVAC systems, lighting of the building and grounds, elevators, motors, water heating and receptacles. The Architect is responsible for identifying cost-effective energy conservation strategies which will meet the Building Energy Budget. However, the Owner will determine which strategies are to be analyzed and which options are to be implemented in design.

For purposes of certifying energy budget compliance the consultant must use one of the programs currently accepted, namely:

- 1) TRANE TRACE 700
- 2) CARRIER E20-II Hourly Analysis Program
- 3) VisualDOE
- 4) Any other software subject to approval

The energy analysis shall include annual energy consumption simulation of the following types of cases:

- "Base Case": The building shall be modeled in accordance with existing conditions including existing HVAC equipment, lighting and miscellaneous loads, envelope and occupancy schedules. The “base case” and shall be

calibrated to within 10% of actual existing energy consumption on an annual basis. Utility consumption and cost data will be made available for the consultant's use.

- "Alternative Packages": Choose at least three alternative HVAC systems or building features as described in the Technology Application Matrix of the *Energy Design Guidelines*. For a building this size, the central plant concept is preferred in lieu of multiple DX type air systems. Analysis of the complete facility with all prescriptive features definitely included in the program through *Energy Design Guidelines*

LIFE-CYCLE COST ANALYSIS

Life-cycle-cost analysis shall be performed to select the least-cost option in HVAC and envelope options for the facility over a 20-year analysis period. Analysis shall include system first cost, projected repair, maintenance and operational costs based on energy hourly analysis energy consumption. , including cost of anticipated component replacement prior to expected system life analysis of base mechanical system and at least three alternatives to follow specified options and economic factors. Use BLCC life cycle analysis web available software produced by NIST. Also required in the analysis shall be weekday, Saturday Sunday and Holiday schedules for 1) occupancy, 2) lighting power, 3) Miscellaneous equipment power, 4) Thermostat set points, 5) HVAC system operation, including system availability, fans, off hour operation, etc.

LEED CERTIFICATION

The project must be designed to be compliant with LEED guidelines for eventual certification. During the design and planning phases, consideration must be given to maximizing natural daylight using day lighting sensors. High occupancy spaces such as assembly and conference rooms shall have demand ventilation systems with CO2 sensors as applicable. LEED items to be evaluated include but not limited to, utilizing a green roof, evaluating the utilization of recyclable materials and exploring the use of alternative energy sources such as photovoltaic for items such as landscape lighting implementing recommended design strategies and technologies as applicable.

REPORTING REQUIREMENTS

Results of the Energy Analysis, Life-Cycle-Cost Analysis and Prescriptive Requirements Analysis must be properly documented for review by the Owner. Report outputs are due with the Schematic and Design Development submittals. In addition to specific requirements in this Energy Program of Requirements, the consultant must follow the energy report menu of the EDG CD-ROM fully and completely to fulfill contractual requirements for Schematic Design and Design Development.

SUMMARY OF PC's IN THE BUILDING

Location	Current Number	Number Needed
STAFF COMPUTERS IN PUBLIC AREAS		
Circulation Desk	4	
Adult Information Desk	3	
Children's Information Desk	2	
Courtesy Desk	1	
Current Total of Staff Computers in Public Areas	Total of 10	10
COMPUTERS IN STAFF AREAS		
Library Manager's Office	1	
LAS Office	2	
Circulation Workroom	4	
Computer Workroom	1	
Senior Librarian	1	
Children's Office	1	
Two Adult Librarian's Offices	3	
In storage, awaiting new staff member	1	
Current Total of Computers in Staff Areas	Total of 15	18
Add workroom – 3 PCs		
PUBLIC PC's		
Entry	1	
Adult Reading areas	23	
Reference areas	4	
Children's area	7	
Children's PC for CD-ROM products	1	
	Total of 36	41
Current Total of Public Access Computers		
Add 5 PCs to Public Area	7	
English Language Learning Lab	6	6
TOTAL NUMBER OF COMPUTERS	67	75